BRUHAT BANGALORE MAHANAGARA PALIKE

MEASUREMENT SHEET

RA 1ST AND FINAL BILL

Name of work: Improvements to Roads and Drains at Prakruthi Layout and Surrounding area in Ward No. 11 (Kuvempunagara).

Estimated Cost : Rs. 25.00 Lakhs

Job Code: 011-22-000007

Head of Account : P-3726 Zonal Public Works - POW Works

Name of Agency: Sri Jyothi Reddy, No. 81, A Block, Kaverinagara, RT Nagar Post, Bangalore - 560032.

Work order No: EE/BTP/BBMP/E-PMT/15(50367)/WO/21/2022-23 D: 22-04-2022.

Measurements Recarded on :

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications.								Cum
	For RCC Drains								
	Prakruthi Layout Main Road E/S								
	From Culvert to Dead End	1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	7.00			1.00	1.00	7.00	
	3rd Cross Road E/S								
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	0.15	2.25	
		1	15.00			1.00	1.00	15.00	
		1	15.00			1.00	1.00	15.00	
		1	4.40			1.00	1.00	4.40	
	Desilting of Drain								
	Prakruthi Layout Main Road								
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.55	4.95	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.45	4.05	
	Prakruthi Layout Main Road								
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.55	4.95	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.45	4.05	

196.75

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
		1	15.00			0.60	0.60	5.40	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.45	4.05	
		1	15.00			0.60	0.50	4.50	
	1st Cross								
	R/S	1	15.00			0.45	0.45	3.04	
		1	12.00			0.45	0.45	2.43	
	L/S	1	15.00			0.45	0.45	3.04	
		1	13.00			0.45	0.45	2.63	
	For Road Work								
	Prakruthi Layout Main Road								
	From Culvert to Dead End								
		1	15.00	4.50	4.80	4.65	0.25	17.44	
		1	15.00	4.80	5.20	5.00	0.25	18.75	
		1	15.00	5.20	4.60	4.90	0.25	18.38	
		1	7.00	4.60	4.60	4.60	0.25	8.05	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55	0.25	20.81	
		1	12.80	5.50	4.70	5.10	0.25	16.32	
		1	7.00	3.50	3.80	3.65	0.25	6.39	
		1	15.00	6.50	6.20	6.35	0.25	23.81	
		1	14.00	6.20	4.80	5.50	0.25	19.25	
		1	5.00	6.20	6.00	6.10	0.25	7.63	
				Total Qty =				**387.71**	
				Qty Limited to =				**386.35**	

10/6

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
2	Removing and refixing stone slabs of drains and pointing in CM (1:3)								Sqm
	For Removing and Resetting of Covering Slab								
	Prakruthi Layout Main Road								
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
	Prakruthi Layout Main Road								
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
		1	15.00				0.90	13.50	
	1st Cross Road BS Slab Drain								
	R/S	1	15.00			1.35		20.25	
		1	15.00			1.35		20.25	
		1	15.00			1.35		20.25	
		1	15.00			1.35		20.25	
	L/S								
		1	6.10			1.35		8.24	
		1	9.70			1.35		13.10	
		1	10.50			1.35		14.18	
					Total Qty =			467.51	
					Qty Limited to =			465.75	

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
4	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm** and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications								Cum
	Bed Concrete								
	Prakruthi Layout Main Road E/S								
	From Culvert to Dead End	1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	7.00			0.90	0.15	0.95	
	3rd Cross Road								
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	15.00			0.90	0.15	2.03	
		1	4.40			0.90	0.15	0.59	
			Total Qty =					**15.71**	
			Qty Limited to =					**15.00**	

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
6	Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. **TMT bars Fe 500**								Tonne
	U Shape Drains	No	L	Mtrs	Kg/m	Kgs			
	3rd Cross Road E/S 10 mm dia	534	2.30	1228.20	0.62	761.48			
	8 mm dia	14	64.40	901.60	0.39	351.62			
	Main Road E/S 10 mm dia	347	2.30	798.10	0.62	494.82			
	8 mm dia	14	52.00	728.00	0.39	283.92			
						1891.85	Kgs		
			Total Qty =			**1.89**			
			Qty Limited to =			**1.89**	Tonne		

Assistant Engineer
Ward No. 11

G.JYOTHIREDDY

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
9	KSRRB 300-49. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications.								Sqm
	Prakruthi Layout Main Road								
	From Culvert to Dead End								
		1	15.00	4.50	4.80	4.65		69.75	
		1	15.00	4.80	5.20	5.00		75.00	
		1	15.00	5.20	4.60	4.90		73.50	
		1	7.00	4.60	4.60	4.60		32.20	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55		83.25	
		1	12.80	5.50	4.70	5.10		65.28	
		1	7.00	3.50	3.80	3.65		25.55	
		1	15.00	6.50	6.20	6.35		95.25	
		1	14.00	6.20	4.80	5.50		77.00	
		1	5.00	6.20	6.00	6.10		30.50	
				Total Qty =				**627.28**	
				Qty Limited to =				**603.75**	

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
10	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.								Cum
	Prakruthi Layout Main Road								
	From Culvert to Dead End								
		1	15.00	4.50	4.80	4.65	0.23	16.04	
		1	15.00	4.80	5.20	5.00	0.23	17.25	
		1	15.00	5.20	4.60	4.90	0.23	16.91	
		1	7.00	4.60	4.60	4.60	0.23	7.41	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55	0.23	19.15	
		1	12.80	5.50	4.70	5.10	0.23	15.01	
		1	7.00	3.50	3.80	3.65	0.23	5.88	
		1	15.00	6.50	6.20	6.35	0.23	21.91	
		1	14.00	6.20	4.80	5.50	0.23	17.71	
		1	5.00	6.20	6.00	6.10	0.23	7.02	
					Total Qty =			**144.27**	
					Qty Limited to =			**138.86**	

Assistant Engineer
Ward No. 11

G.JYOTHI REDDY

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
11	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.								Sqm
	Prakruthi Layout Main Road								
	From Culvert to Dead End								
		1	15.00	4.50	4.80	4.65		69.75	
		1	15.00	4.80	5.20	5.00		75.00	
		1	15.00	5.20	4.60	4.90		73.50	
		1	7.00	4.60	4.60	4.60		32.20	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55		83.25	
		1	12.80	5.50	4.70	5.10		65.28	
		1	7.00	3.50	3.80	3.65		25.55	
		1	15.00	6.50	6.20	6.35		95.25	
		1	14.00	6.20	4.80	5.50		77.00	
		1	5.00	6.20	6.00	6.10		30.50	
			Total Qty =					**627.28**	
			Qty Limited to =					**603.75**	

8/6

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
12	Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen**								Cum
	Prakruthi Layout Main Road								
	From Culvert to Dead End								
		1	15.00	4.50	4.80	4.65	0.050	3.49	
		1	15.00	4.80	5.20	5.00	0.050	3.75	
		1	15.00	5.20	4.60	4.90	0.050	3.68	
		1	7.00	4.60	4.60	4.60	0.050	1.61	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55	0.050	4.16	
		1	12.80	5.50	4.70	5.10	0.050	3.26	
		1	7.00	3.50	3.80	3.65	0.050	1.28	
		1	15.00	6.50	6.20	6.35	0.050	4.76	
		1	14.00	6.20	4.80	5.50	0.050	3.85	
		1	5.00	6.20	6.00	6.10	0.050	1.53	
			Total Qty =					**31.36**	
			Qty Limited to =					**30.19**	

8/6

Assistant Engineer
Ward No. 11

20/6

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY

Sl No.	Description	No.	L	B1	B2	Av.B	D	Qty	Unit
	Measurements Recarded on :								
13	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications.								Sqm
	Prakruthi Layout Main Road								
		1	15.00	6.60	6.80	6.70		100.50	
		1	15.00	6.80	6.70	6.75		101.25	
		1	15.00	6.70	6.70	6.70		100.50	
		1	15.00	6.70	6.90	6.80		102.00	
		1	15.00	6.90	6.50	6.70		100.50	
		1	15.00	6.50	5.00	5.75		86.25	
		1	15.00	5.00	5.90	5.45		81.75	
		1	15.00	5.90	5.70	5.80		87.00	
		1	15.00	5.70	6.70	6.20		93.00	
		1	15.00	6.70	6.50	6.60		99.00	
		1	15.00	6.50	6.60	6.55		98.25	
		1	15.00	6.60	6.10	6.35		95.25	
		1	15.00	6.30	5.80	6.05		90.75	
	From Culvert to Dead End	1							
		1	15.00	4.50	4.80	4.65		69.75	
		1	15.00	4.80	5.20	5.00		75.00	
		1	15.00	5.20	4.60	4.90		73.50	
		1	7.00	4.60	4.60	4.60		32.20	
	3rd Cross Road								
		1	15.00	5.60	5.50	5.55		83.25	
		1	12.80	5.50	4.70	5.10		65.28	
		1	7.00	3.50	3.80	3.65		25.55	
		1	15.00	6.50	6.20	6.35		95.25	
		1	14.00	6.20	4.80	5.50		77.00	
			Total Qty =					**1832.78**	
			Qty Limited to =					**1725.00**	

Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

G. JYOTHIREDDY